# Table of Contents

Lab Overview - HOL-1844-01-SLN - Modernizing Your Data Center with VMware Cloud Foundation .......................................................................................................................... 3
Lab Guidance ........................................................................................................ 4

## Module 1 - Deploying VMware Cloud Foundation (15 Minutes) .......................... 7
Introduction............................................................................................................... 8
Hands-on Labs Interactive Simulation: Deploying VMware Cloud Foundation...... 11
Conclusion.............................................................................................................. 12

## Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain (10 Minutes) 14
Introduction............................................................................................................. 15
Hands-on Labs Interactive Simulation: Creating a Virtual Infrastructure (VI) Workload Domain with SDDC Manager ................................................................. 17
Conclusion.............................................................................................................. 18

## Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain (15 Minutes) ........................................................................................................... 21
Introduction............................................................................................................. 22
Hands-on Labs Interactive Simulation: Creating a Virtual Desktop Infrastructure (VDI) workload domain with SDDC Manager ...................................................... 24
Conclusion.............................................................................................................. 25

## Module 4 - Increasing the Capacity of a Workload Domain (10 Minutes) ............ 28
Introduction............................................................................................................. 29
Hands-on Labs Interactive Simulation: Expand a workload domain with SDDC Manager ......................................................................................................................... 31
Conclusion.............................................................................................................. 32

## Module 5 - Deleting a Workload Domain (10 Minutes) ....................................... 34
Introduction............................................................................................................. 35
Hands-on Labs Interactive Simulation: Deleting a workload domain with SDDC Manager ......................................................................................................................... 36
Conclusion.............................................................................................................. 37

## Module 6 - Managing Software Updates in VMware Cloud Foundation (15 Minutes) 39
Introduction............................................................................................................. 40
Hands-on Labs Interactive Simulation: Managing software updates in VMware Cloud Foundation ........................................................................................................ 41
Conclusion.............................................................................................................. 42

## Module 7 - Replacing a Failed Host in VMware Cloud Foundation (15 Minutes) 44
Introduction............................................................................................................. 45
Hands-on Labs Interactive Simulation: Replacing a Failed Host in VMware Cloud Foundation ........................................................................................................ 47
Conclusion.............................................................................................................. 48

## Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes (10 Minutes) ............................................................................ 50
Introduction............................................................................................................. 51
Lab Guidance

The Table of Contents can be accessed in the upper right-hand corner of the Lab Manual.

This lab is an Interactive Simulation lab. You will gain a better understanding of how VMware Cloud Foundation provides an easier way to deploy and operate a private cloud based on VMware's Software Defined Data Center (SDDC) architecture.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.
- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.
- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.
- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.
- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.
- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.
- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.
- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.
• **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

**Lab Captains:**

• Heath Johnson, Sr Technical Marketing Manager, USA
• Josh Townsend, Sr Technical Marketing Architect, USA

This lab manual can be downloaded from the Hands-on Labs Document site found here:

http://docs.hol.vmware.com

**Location of the Main Console**

1. The area in the RED box contains the Main Console. The Lab Manual is on the tab to the Right of the Main Console.
2. A particular lab may have additional consoles found on separate tabs in the upper left. You will be directed to open another specific console if needed.
3. Your lab starts with 90 minutes on the timer. The lab can not be saved. All your work must be done during the lab session. But you can click the **EXTEND** to increase your time. If you are at a VMware event, you can extend your lab time twice, for up to 30 minutes. Each click gives you an additional 15 minutes. Outside of VMware events, you can extend your lab time up to 9 hours and 30 minutes. Each click gives you an additional hour.
Activation Prompt or Watermark

When you first start your lab, you may notice a watermark on the desktop indicating that Windows is not activated.

One of the major benefits of virtualization is that virtual machines can be moved and run on any platform. The Hands-on Labs utilizes this benefit and we are able to run the labs out of multiple datacenters. However, these datacenters may not have identical processors, which triggers a Microsoft activation check through the Internet.

Rest assured, VMware and the Hands-on Labs are in full compliance with Microsoft licensing requirements. The lab that you are using is a self-contained pod and does not have full access to the Internet, which is required for Windows to verify the activation. Without full access to the Internet, this automated process fails and you see this watermark.

This cosmetic issue has no effect on your lab.
Module 1 - Deploying VMware Cloud Foundation (15 Minutes)
Introduction

Cloud Foundation Bring-Up Overview
Bring up demonstrates the powerful time-saving automation capability of VMware Cloud Foundation. During bring-up, the VMware SDDC Manager deploys and configures the SDDC software components (vSphere, vSAN, and NSX) and creates the Management Workload Domain. The bring-up process instantiates a VMware Private Cloud, based on a VMware Validated Design, in your on-premises data center. Once complete, you will be able to quickly begin deploying applications and virtual desktop workloads.

During bring-up, the cloud administrator uses a web browser to connect to the SDDC Manager and provide details about the private cloud environment. This includes: setting the date and time, configuring site-specific DNS and NTP settings, and specifying the network settings for the vSphere management, vMotion, vSAN and VXLAN networks. In addition, information on how to connect to the data center uplink networks is also provided. SDDC Manager then uses this input to:

- Configure the physical networking on the Top-of-Rack (ToR) and management switches in the racks.
- Deploy a pair of platform services controllers along with a dedicated vCenter Server.
- Create a four-node vSphere management domain, with vSAN, HA and DRS configured.
- Create a dedicated vSAN data store in the management domain.
- Create a distributed virtual switch and associated port groups in the management domain.
- Deploy and configuring NSX in the management domain.
• Deploy and configure the Cloud Foundation infrastructure components in the management domain.

The bring-up process is fully automated using the VMware SDDC manager. Once the bring up process is complete, Cloud Foundation is deployed and you have a fully operational Management Workload Domain. From here you will be ready to begin allocating the available capacity in your private cloud to host compute workloads by deploying workload domains.
Hands-on Labs Interactive Simulation: Deploying VMware Cloud Foundation

This interactive simulation walks you through

1. How to connect to the VMware SDDC Manager
2. Complete the Bring-up process

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the “Return to the lab” link to continue with this lab.
Conclusion

In this module, we were given an overview of the VMware Cloud Foundation bring-up process. We have seen first hand how the powerful automation capabilities of the VMware SDDC Manager simplify the tasks of installing and configuring the SDDC software stack in order to instantiate your private cloud. We also stepped through an interactive simulation that showed how to connect to the VMware SDDC Manager and complete the "bring-up" process.

Congratulations on completing Module 1.

For more information visit the VMware Cloud Foundation web site. For additional product demonstrations and how to videos visit the VMware Cloud Foundation YouTube Channel.

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of
creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

### How to End Lab

To end your lab click on the **END** button.
Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain (10 Minutes)
VMware Cloud Foundation Virtual Infrastructure (VI) Workload Domain Overview

Once Cloud Foundation has been deployed and you have instantiated your private cloud, you are ready to begin allocating capacity. To do this, you create workload domains. There are currently two types of user-defined workload domains:

- **Virtual infrastructure domains**, or VI domains, are general purpose domains used to host virtual workloads. A VI domain is comprised of 3 or more vSphere hosts configured in a vSAN cluster with a dedicated vCenter Server and NSX instance

- **Virtual Desktop infrastructure domains**, or VDI domains, are special purpose domains used to deliver virtual desktops. Like a VI domain, a VDI domain also comprises of 3 or more vSphere hosts configured in a vSAN cluster with a dedicated vCenter Server and NSX instance, but also includes the VMware Horizon software used to provide virtual desktops.

Using the advanced automation capabilities of the VMware SDDC Manager, Workload domains can easily be created, expanded and deleted. This makes it easy to allocate the capacity you need, dynamically expand that capacity as needed, and, if a workload domain is no longer needed, return the capacity back to the free pool where it can be reassigned. Thus delivering a true cloud experience right inside your data center.
In this module, we will provide an overview on how to create a Virtual Infrastructure (VI) workload domain.

You create a Virtual Infrastructure (VI) workload domain using the SDDC Manager. Based on the inputs provided by the cloud administrator, the VI workload domain creation workflow will perform the steps necessary to deploy a dedicated vCenter Server instance, assign the selected ESXi hosts to a dedicated vSphere cluster, and perform the necessary configuration, to include things like: creating the vSAN datastore, enabling vSphere HA and DRS, configuring a Virtual Distributed Switch with the pertinent port groups, and deploying and configuring NSX.

Once the VI Workload Domain has been deployed, you can optionally register it with vRealize Log Insight, vRealize Operations, and vRealize Automation.

Again, creating workload domains is fully automated using the powerful automation capabilities of the VMware SDDC manager.
Hands-on Labs Interactive Simulation: Creating a Virtual Infrastructure (VI) Workload Domain with SDDC Manager

This simulation walks you through

1. How to create a VI workload domain

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module, we have seen how the VMware SDDC Manager is able to quickly and efficiently orchestrate the creation of workload domains. In automating large numbers of manual operations, VMware Cloud Foundation vastly simplifies the task of allocating cloud capacity while simultaneously eliminating operational overhead. We also stepped through an interactive simulation that showed how to create a virtual infrastructure (VI) workload domain.

Congratulations on completing Module 2.

For more information visit the [VMware Cloud Foundation web site](https://www.vmware.com/). For additional product demonstrations and how to videos visit the [VMware Cloud Foundation YouTube Channel](https://www.youtube.com/).
To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.

- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.
How to End Lab

To end your lab click on the **END** button.
Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain (15 Minutes)
Introduction

VMware Cloud Foundation Virtual Desktop Infrastructure (VDI) Workload Domain Overview

Once Cloud Foundation has been deployed and you have instantiated your private cloud, you are ready to begin allocating capacity. To do this, you create workload domains. There are currently two types of user-defined workload domains:

- **Virtual infrastructure domains**, or VI domains, are general purpose domains used to host virtual workloads. A VI domain is comprised of 3 or more vSphere hosts configured in a vSAN cluster with a dedicated vCenter Server and NSX instance.

- **Virtual Desktop infrastructure domains**, or VDI domains, are special purpose domains used to deliver virtual desktops. Like a VI domain, a VDI domain also comprises of 3 or more vSphere hosts configured in a vSAN cluster with a dedicated vCenter Server and NSX instance, but also includes the VMware Horizon software used to provide virtual desktops.

Using the advanced automation capabilities of the VMware SDDC Manager, workload domains can easily be created, expanded and deleted. This makes it easy to allocate the capacity you need, dynamically expand that capacity as needed, and, if a workload domain is no longer needed, return the capacity back to the free pool where it can be reassigned. Thus delivering a true cloud experience right inside your data center.
In this module, we will provide an overview on how to create a Virtual Desktop Infrastructure (VDI) workload domain.

When you create a VDI workload domain the creation workflow is a two-step process:

1. SDDC Manager first runs the VI workload domain creation workflow, to create a virtual infrastructure (VI) environment. The VI workload domain is sized based on the host's selection from the cloud administrator.

2. SDDC Manager then runs a second workflow to deploy and configure the VMware Horizon software needed to provide the virtual desktop infrastructure. This includes Horizon Connection Server, Horizon Agent, Horizon Administrator, Horizon Composer, and the various client applications used for accessing the virtual desktops. When you specify the App Volumes choice in the configuration wizard, the VMware App Volumes software is also configured in the VDI environment and the VMware App Volumes agent is installed in the deployed virtual desktops as part of the VDI environment creation process.

Note that the creation of the underlying vSphere cluster and the deployment of the Horizon software stack, to include creating desktop pools and virtual desktops is fully automated with the SDDC Manager; the administrator does not take any manual actions to complete the workflows once they have been initiated.
Hands-on Labs Interactive Simulation: Creating a Virtual Desktop Infrastructure (VDI) workload domain with SDDC Manager

This simulation walks you through

1. How to create a VDI workload domain

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab
Conclusion

In this module, we seen how to use the VMware SDDC Manager to create a Virtual Desktop Infrastructure (VDI) workload domain. VMware Cloud Foundation for Horizon delivers a complete solution for VDI deployments at scale. Cloud Foundation easily deploys Horizon 7 into your private cloud, with infrastructure aligned to the VMware Validated Designs and that follows VMware Horizon architectural best practices. The fully automated provisioning takes the guesswork out of setting up your virtual desktop infrastructure, allowing you to deploy Horizon 7 and all of its supporting infrastructure in a matter of hours. We also stepped through an interactive simulation that showed how to create a VDI workload domain.

Congratulations on completing Module 3.
For more information visit the [VMware Cloud Foundation web site](https://www.vmware.com/collateral/new-product/cloud-foundation/). For additional product demonstrations and how-to videos visit the [VMware Cloud Foundation YouTube Channel](https://www.youtube.com/playlist?list=PLv5s4Y8v92G9z71oN8NQKZxUJmCkM8Lsh).

To continue with the lab, proceed to any module below.

**Lab Module List:**

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.
- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.
- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.
- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.
- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.
- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.
- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.
- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.
- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.
How to End Lab

To end your lab click on the **END** button.
Module 4 - Increasing the Capacity of a Workload Domain (10 Minutes)
Introduction

VMware Cloud Foundation Workload Domain Expansion Overview

A traditional challenge faced by IT organizations has been the need to forecast capacity requirements for application workloads. Overestimating can not only increase costs, but may also result in wasted capacity. Underestimating could put the business at risk of poor performance and missed SLAs.

Fortunately, with the adoption of cloud computing, IT no longer has to grapple with trying to anticipate future capacity needs. Instead, they simply allocate the capacity that is needed today, knowing they can easily add more as demand increases down the road.
When running a private cloud with VMware Cloud Foundation, this is done using the VMware SDDC manager.

When IT receives a request to assign capacity to a new workload, they create a workload domain. The domain is sized based on the current capacity requirements of the applications. In the future, should the applications demand more capacity, the workload domain can easily be extended.

In this module, we will go over an example showing how to add additional capacity by expanding a VI workload domain.
Hands-on Labs Interactive Simulation: Expand a workload domain with SDDC Manager

This simulation walks you through

1. How to add capacity to an existing workload domain

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. [Click here to open the interactive simulation.](#) It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this simulation, we have seen how Cloud Foundation helps reduce operational overhead and simplify the private cloud by making it easy to add capacity to existing workload domains. We also stepped through an interactive simulation that showed how to use the VMware SDDC Manager to add capacity to a Virtual Infrastructure (VI) workload domain.

Congratulations on completing Module 4.

For more information visit the [VMware Cloud Foundation web site](https://www.vmware.com/). For additional product demonstrations and how to videos visit the [VMware Cloud Foundation YouTube Channel](https://www.youtube.com/).

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
• **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

• **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

• **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

• **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

• **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

• **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

• **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

• **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

• **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

---

**How to End Lab**

To end your lab click on the **END** button.
Introduction

VMware Cloud Foundation Workload Domain Deletion Overview

A common challenge faced in many virtual environments is the need to reclaim previously allocated capacity that has become dormant. VMware Cloud Foundation addresses this challenge by making it easy for cloud administrators to delete workload domains that are no longer needed. Deleting a workload domain returns the previously allocated capacity back to the free pool where it can be reassigned. Using the SDDC Manager you can easily delete a workload domain by simply navigating to the domains detail page and selecting the "delete" option.

Deleting a workload domain removes the ESXi hosts from the vSphere Cluster, removes the vSAN datastore and associated disk partitions, resets the ESXi configuration on each host, deletes the vCenter Server and NSX Manager instances, and reconfigures the network ports on the Top-of-Rack switches. Thus it removes the workload domain and performs all the "clean-up" tasks required to safely return the previously allocated capacity back to the free pool where it is available to be reassigned to other workload domains.

In this module, we will go over an example showing how to delete a VI workload domain.
Hands-on Labs Interactive Simulation: Deleting a workload domain with SDDC Manager

This simulation walks you through

1. How to delete a workload domain.

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module, we have seen how the VMware SDDC Manager reduces operational overhead by leveraging automation to delete workload domains. Deleting a workload domain allows previously allocated capacity to quickly and easily be reclaimed and reassigned to other workloads running in the private cloud. We also stepped through an interactive simulation that showed how to delete a workload domain using the SDDC manager.

Congratulations on completing Module 5.

For more information visit the VMware Cloud Foundation web site. For additional product demonstrations and how to videos visit the VMware Cloud Foundation YouTube Channel.

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

Module 4 - Increasing the Capacity of a Workload Domain (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

Module 5 - Deleting a Workload Domain (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

Module 6 - Managing Software Updates in VMware Cloud Foundation (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

Module 7 - Replacing a Failed Host in VMware Cloud Foundation (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

Module 9 - Deploying vRealize Operations on VMware Cloud Foundation (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

Module 10 - Deploying vRealize Automation on VMware Cloud Foundation (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

How to End Lab

To end your lab click on the EN button.
Module 6 - Managing Software Updates in VMware Cloud Foundation (15 Minutes)
Introduction

VMware Cloud Foundation Software Lifecycle Management Overview (Patches and Upgrades)

The Lifecycle Management (LCM) feature of VMware Cloud Foundation enables you to perform automated updating of both the Cloud Foundation software components (SDDC Manager, HMS, and LCM) as well as the VMware SDDC components (vCenter Server, PSC, ESXi, vSAN, and NSX).

Data center upgrade and patch management are typically manual, repetitive tasks that are prone to configuration and implementation errors. Validation testing of software and firmware to ensure interoperability among components when one component is patched or upgraded requires extensive quality assurance testing in staging environments. Often strapped for time, IT must sometimes make the difficult decision to deploy new patches before they are fully vetted or defer new patches, which slows down the roll-out of a new feature of security and bug fixes. Both situations increase the risk for the private cloud environment.

SDDC Manager automates upgrade and patch management for the SDDC software stack, thereby freeing resources to focus on business-critical initiatives while improving reliability and consistency.

Lifecycle Management in SDDC Manager can be applied to the entire infrastructure or to specific workload domain and is designed to be non-disruptive to tenant virtual machines (VMs). By utilizing live VM migration, SDDC Manager can patch software to improve infrastructure security and reliability while maintaining tenant uptime.

As new software updates become available, the SDDC Manager provides notification to the cloud administrator who is able to view the update details and, at a time that is convenient to them, download and schedule the updates.

In this module, we show how the Lifecycle Management feature built into Cloud Foundation is used to upgrade from VMware Cloud Foundation 2.0 to VMware Cloud Foundation 2.1.
Hands-on Labs Interactive Simulation: Managing software updates in VMware Cloud Foundation

This simulation walks you through

1. An overview of how the patching and upgrading process works.

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module you were given an overview of automation of the patching and upgrading process for the software components of Cloud Foundations. You also stepped through an interactive simulation that showed you how to automatically patch/upgrade the software components that make up a Cloud Foundation installation.

Congratulations on completing Module 8.

If you are looking for additional information on VMware Cloud Foundation, try one of these:

- Click on this [VMware Cloud Foundation](#)
- Or use your smart device to scan the QRC Code.

Proceed to any module below which interests you most. [Add any custom/optional information for your lab manual.]

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.
- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.
- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.
- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.
- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.
- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.
• **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

• **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

• **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

---

**How to End Lab**

To end your lab click on the **END** button.
Module 7 - Replacing a Failed Host in VMware Cloud Foundation (15 Minutes)
Introduction

VMware Cloud Foundation Host Commissioning and Decommissioning Overview

Let's face it, hardware failures happen. Even with multiple levels of redundancy hosts can and do go offline. Sure, with vSphere HA in place the VMs running on the failed host will automatically be restarted on another host in the cluster. But now you have to deal with replacing the failed host. And this takes time and can come with some risk - what if another host fails? What if you make a mistake? When hardware failures happen, you need to be able to recover quickly and without risk. Fortunately, VMware Cloud foundation makes it very easy to recover from a failed hosts.

Leveraging the automation capabilities of the SDDC Manager the cloud administrator can quickly replace a failed host by simply extending the workload domain. Once the workload domain has been extended, they can then easily remove the failed host from both the vSphere cluster as well as the Cloud Foundation inventory. This can all be done quickly, with minimal risk, and with no disruption to the hosted workloads.

In this module, a hardware failure has occurred in our private cloud. We'll walk through the process of discovering the hardware failure and decommissioning the failed host. Then we will replace the failed server with a spare host from the free host pool to ensure that our business can continue to function normally. Once the hardware has been repaired, we'll show how SDDC Manager makes it easy to re-image the new host and add it back to the free pool. Here again, with Cloud Foundation and the powerful
automation capabilities of the SDDC manager the entire process is simple, quick, and stress-free.
Hands-on Labs Interactive Simulation: Replacing a Failed Host in VMware Cloud Foundation

This simulation walks you through

1. How to replace a failed host

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module, we have seen how cloud administrators are able to leverage the powerful automation capabilities of the VMware SDDC Manager in order to quickly respond to, and recover from hardware failures with no disruption to the business. We also stepped through an interactive simulation that showed how to replace a failed server using the SDDC manager.

Congratulations on completing Module 7.

For more information visit the VMware Cloud Foundation web site. For additional product demonstrations and how to videos visit the VMware Cloud Foundation YouTube Channel.

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of
creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

**How to End Lab**

To end your lab click on the **END** button.
Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes (10 Minutes)
VMware Cloud Foundation moves at the speed of business. When your business grows, you need your private cloud to grow with you. Expanding your Cloud Foundation installation is made easy with the powerful automation capabilities of the SDDC Manager. As you create workload domains and consume your available CPU, memory and storage capacity, you'll need to add more resources. In a Cloud Foundation private cloud, you do this by simply adding new servers to your existing racks, or when you run out of room in the rack, appending new racks. Once the hardware is in place, you leverage Cloud Foundation automation to install the ESXi hypervisor (a process called imaging) and add them to your inventory where they are immediately available for creating and extending workload domains.

A cloud foundation environment can start with a single rack and as few as four vSAN ready nodes, and scale up to a total of 8 racks with as many as 256 ready nodes. In addition, within each rack, you can combine servers with different CPU, memory and storage densities allowing you to take advantage of new hardware over time, as well as size your infrastructure based on the types of workloads running in your private cloud.

In this simulation, we will demonstrate how to expand your private cloud capacity by adding new servers to an existing rack.
Hands-on Labs Interactive Simulation: Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes

This interactive simulation walks you through

1. How to expand an existing Cloud Foundation rack

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. Click here to open the interactive simulation. It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module, we seen how to use the powerful automation capabilities of the VMware SDDC Manager in order to easily expand our private cloud capacity by adding new servers to an existing rack. We also stepped through an interactive simulation that showed how to add servers to our Cloud Foundation environment using the VMware SDDC Manager.

![Image of VMware SDDC Manager](image-url)

Congratulations on completing Module 8.

For more information visit the [VMware Cloud Foundation web site](https://vmware.com). For additional product demonstrations and how to videos visit the [VMware Cloud Foundation YouTube Channel](https://vmware.com/youtube).

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of
creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.
- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.
- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.
- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.
- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.
- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.
- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.
- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

**How to End Lab**

To end your lab click on the **END** button.
Module 9 - Deploying vRealize Operations on VMware Cloud Foundation (10 Minutes)
Introduction

Deploying vRealize Operations on VMware Cloud Foundation Overview

Cloud Foundation, leveraging the advanced automation capabilities of the VMware SDDC Manager, together with the automation capabilities of the vRealize Suite Lifecycle Manager, vastly simplifies the task of deploying and operating a modern software-defined data center. This includes making it easy to deploy vRealize Operations inside your private cloud.

vRealize Operations provides intelligent IT operations for your private cloud. vRealize Operations enables cloud administrators to more effectively plan, manage and scale the private cloud through unified monitoring, automated performance management, cloud planning and capacity optimization.

In this module, we will show how to leverage the automation capabilities of the VMware SDDC Manager to deploy vRealize Operations on a Cloud Foundation private cloud.
Hands-on Labs Interactive Simulation: Deploying vRealize Operations with SDDC Manager

This interactive simulation walks you through

1. How to install vRealize Operations

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

   1. Click here to open the interactive simulation. It will open in a new browser window or tab.
   2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module we seen how the VMware SDDC Manager, leveraging the automation capabilities of the vRealize Suite Lifecycle Manager, makes it easy to deploy and configure vRealize Operations in our private cloud. We also stepped through an interactive simulation showing the steps to deploy vRealize Operations in Cloud Foundation.

Congratulations on completing Module 9.

For more information visit the VMware Cloud Foundation web site. For additional product demonstrations and how to videos visit the VMware Cloud Foundation YouTube Channel.

To continue with the lab, proceed to any module below.

Lab Module List:

- **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.
- **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of
creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

- **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

- **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

- **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

- **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

- **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

- **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

- **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

- **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

### How to End Lab

To end your lab click on the **END** button.
Module 10 - Deploying vRealize Automation on VMware Cloud Foundation (10 Minutes)
**Introduction**

Deploying vRealize Automation on VMware Cloud Foundation Overview

VMware vRealize Automation is the IT Automation tool of the modern Software-Defined Data Center. vRealize Automation enables IT Automation through the creation and management of personalized infrastructure, using blueprints to create applications and deploy custom IT services (XaaS). This IT Automation lets you deploy IT services rapidly across both your on-premises private cloud as well as your public clouds.

In this simulation, Cloud Foundation will install a VMware Validated Design of vRealize Automation. There are many design choices to be made when installing vRealize Automation. Cloud Foundation has completed the design process for you and will implement a fully redundant enterprise vRA installation.

With the design phase completed by VMware Cloud Foundation, we make it easy to deploy and get started with vRealize Automation. Installing vRealize Automation requires preparing a few prerequisites which are listed in the Cloud Foundation documentation. Once you complete these prerequisites, Cloud Foundation does the remaining heavy lifting and deploys and configures the many separate components. This is done by leveraging the automation capabilities of the VMware SDDC manager, together with the vRealize Lifecycle Manager, Cloud Foundation vastly simplifies the deployment of vRealize Automation.
In this module, we will guide you through the steps to deploy vRealize Automation on your Cloud Foundation private cloud.
Hands-on Labs Interactive Simulation: Deploying vRealize Automation with SDDC Manager

This interactive simulation walks you through

1. How to install vRealize Automation

The interactive simulation will allow you to experience steps which are too time-consuming or resource intensive to do live in the lab environment.

1. [Click here to open the interactive simulation.](#) It will open in a new browser window or tab.
2. When finished, click the Return to the lab link to continue with this lab.
Conclusion

In this module, we have seen how the advanced automation capabilities of the VMware SDDC Manager, together with the vRealize Suite Lifecycle Manager, makes it easy to deploy vRealize Automation in our private cloud in just a few hours. We also stepped through an interactive simulation showing how to deploy vRealize Automation in Cloud Foundation.

With VMware vRealize Automation installed, cloud administrators can begin to accelerate the provisioning and delivery of IT services and applications in their private cloud. By creating compelling blueprints to deliver XaaS. Helping you move at the speed of business.

Congratulations on completing Module 10.

For more information visit the VMware Cloud Foundation web site. For additional product demonstrations and how to videos visit the VMware Cloud Foundation YouTube Channel.

To continue with the lab, proceed to any module below.

Lab Module List:
• **Module 1 - Deploying VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of deploying the SDDC software stack (vSphere, vSAN, NSX) on a new physical rack (servers and switches) in order to instantiate a Cloud Foundation private cloud.

• **Module 2 - Creating a Virtual Infrastructure (VI) Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Infrastructure (VI) Workload Domain using the VMware SDDC Manager.

• **Module 3 - Creating a Virtual Desktop Infrastructure (VDI) Workload Domain** (15 minutes) (Basic) This interactive simulation steps you through the process of creating a Virtual Desktop Infrastructure (VDI) Workload Domain using the VMware SDDC Manager.

• **Module 4 - Increasing the Capacity of a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of adding additional CPU, memory and storage capacity to a Workload Domain using the VMware SDDC Manager.

• **Module 5 - Deleting a Workload Domain** (10 minutes) (Basic) This interactive simulation steps you through the process of removing an Workload Domain using the VMware SDDC Manager.

• **Module 6 - Managing Software Updates in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of updating the Cloud Foundation software components (vSphere, vSAN, NSX) using the advanced lifecycle automation capabilities of the VMware SDDC Manager.

• **Module 7 - Replacing a Failed Host in VMware Cloud Foundation** (15 minutes) (Basic) This interactive simulation steps you through the process of replacing a failed server in a Workload Domain.

• **Module 8 - Expanding VMware Cloud Foundation Capacity by Adding New ReadyNodes** (10 minutes) (Basic) This interactive simulation steps you through the process of adding new servers in order to expand your private cloud capacity.

• **Module 9 - Deploying vRealize Operations on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Operations in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

• **Module 10 - Deploying vRealize Automation on VMware Cloud Foundation** (10 minutes) (Basic) This interactive simulation steps you through the process of deploying vRealize Automation in your Cloud Foundation private cloud using the vRealize Suite Lifecycle Manager together with the VMware SDDC Manager.

**How to End Lab**
To end your lab click on the **END** button.
Conclusion

Thank you for participating in the VMware Hands-on Labs. Be sure to visit http://hol.vmware.com/ to continue your lab experience online.

Lab SKU: HOL-1844-01-SLN

Version: 20180406-155752